

## 5PSQ-098 ALLERGIES AND INTOLERANCES: AN OPPORTUNITY FOR IMPROVEMENT

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**Background and importance** In 2014, the Institute of Safe Medication Practice published a bulletin that showed the importance of drug hypersensitivity reactions. Pharmacy services could contribute to identify and avoid allergic reactions in patients.

**Aim and objectives** To evaluate the allergies and intolerances register system, the level of acceptance of pharmaceutical interventions and to determinate the most frequent pharmacological groups that cause allergies.

**Material and methods** A prospective study was conducted of allergies and intolerances registered in the medical history and prescription programme in a cohort of inpatients during the study period. Phase 1 (October 2018) was observational and included a situation analysis, except for a safety intervention if the patient was at risk. During phase 2 (November–December 2018), allergies/intolerances registered only in the medical history were identified and pharmacists informed the prescribers.

**Results** Phase 1 included 374 patients, 60 (16%) with some allergy. In total, 71 allergies were described in the medical history but only 27% appeared in the prescription programme. A drug with allergy known was prescribed in 4 patients.

Phase 2 included 1039 patients, 136 (13%) with allergies and 32 (3%) with intolerances. Of 232 allergies and 41 intolerances described, only 37% and 7%, respectively, were registered in the prescription programme. Drugs with allergies or intolerances prescribed were found in 7 and 3 patients, respectively. After pharmacist interventions, only 23% were approved and registered by the physician. Medical services registered 31% of allergies versus 49% in the surgical services. Anti-infectives and CNS drugs reached 66% of the total allergies.

**Conclusion and relevance** Most interventions (77%) were not accepted and not registered in the prescription programme. Surgical services registered more allergies than medical services. Drug administration was avoided in 11 patients with allergies due to pharmacist intervention. Anti-infectives and CNS drugs were the groups involved more frequently in allergies. Promotion of the allergies/intolerances register is needed to avoid erroneous administration in allergic patients.

### REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

## 5PSQ-099 POTENTIALLY INADEQUATE MEDICATION DETECTED DIFFERENTLY BY PRISCUS, FORTA OR EU(7)-PIM IS ASSOCIATED WITH REDUCED COGNITIVE FUNCTION IN MULTIMORBID ELDERLY PATIENTS

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**Background and importance** The population aged  $\geq 65$  years suffers multimorbidity associated with increasing use of potentially inappropriate medications (PIM). MultiCare, a longitudinal cohort study, collected data (eg, socioeconomic status, morbidities, drugs and risk factors) on 3189 multimorbid, elderly (65–85 years) patients in primary care in Germany.

**Aim and objectives** The aim was to compare three different PIM lists and to show the effect of PIM use on cognitive function in multimorbid elderly patients.

**Material and methods** Prescribed and over the counter drugs were classified using PRISCUS, FORTA (fit for the aged) and EU(7)-PIM lists. To measure cognitive function, patients performed a letter digit substitution test. A mixed effect maximum likelihood regression was performed to calculate the influence of PIM (all three lists separately) on the cognitive function of patients.

**Results** Patients were treated with 936 PRISCUS PIM (mean  $0.3 \pm 0.58$  per patient), 2152 FORTA PIM ( $0.9 \pm 1.03$ ) and 4311 EU(7)-PIM ( $1.4 \pm 1.29$ ). The most common PRISCUS PIM was amitriptyline (2.8%), the most common FORTA PIM was phenprocoumon (13.8%) and the most common EU(7)-PIM was omeprazole (14.0%). In patients who used seven drugs or more, significantly more PIM according to all three lists were detected. Older age (patients  $\geq 80$  years) was associated with increased use of PIM according to FORTA and PRISCUS ( $p=0.0052$ ,  $p=0.0001$ ). The three lists rated PIM differently, with an overall overlap of 6.6% and 18.2% (EU(7)-PIM and FORTA PIM), 9.7% (EU(7)-PIM and PRISCUS PIM) and 0.2% (FORTA and PRISCUS PIM) between two lists. The increased use of PIM was significantly associated with reduced cognitive function (all PIM lists  $p \leq 0.0001$ ). This association was detected with a correlation coefficient of  $-0.72$  for PRISCUS PIM,  $-0.60$  for FORTA PIM and  $-0.44$  for EU(7)-PIM.

**Conclusion and relevance** Polypharmacy was identified as a risk factor for the use of PIM. The connection of decreased cognitive function and the use of PIM underlines the importance of reducing the amount of PIM in multimorbid elderly patients.

### REFERENCES AND/OR ACKNOWLEDGEMENTS

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## 5PSQ-100 COMPARATIVE ANALYSIS OF THE SAFETY AND TOLERABILITY PROFILE OF PIRFENIDONE AND NINTEDANIB IN THE TREATMENT OF IDIOPATHIC PULMONARY FIBROSIS

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**Background and importance** The main treatments for idiopathic pulmonary fibrosis are pirfenidone and nintedanib. Although their efficacy is known, further studies are needed to evaluate the safety and tolerability profiles (STPs) based on real world data.

**Aim and objectives** The aim of this study was to evaluate the STP of nintedanib and pirfenidone according to our hospital data.

**Material and methods** We analysed 148 patients treated with pirfenidone (72% men; 28% women) and 120 treated with nintedanib (77% men; 23% women) from September 2016 to September 2019. The average age of the patients treated with pirfenidone and nintedanib was 72.7 and 74.4 years, respectively. Drug tolerability was compared by a Student's t test considering the average number of days of treatment (DOT) for patients who started the therapy since September 2016 (n=88 pirfenidone; n=120 nintedanib). The safety of the two treatments was compared by analysing the adverse drug reactions (ADRs) reported. ADRs were classified as: nausea/vomiting (NV), diarrhoea, rash, weight loss (WL) and non-specific gastrointestinal disturbance (nsGID). We also considered the type of action taken (interruption, reduction of dosage) and compared the frequencies using a  $\chi^2$  test.

**Results** The Student's t test showed no statistically significant difference in the average DOT between the two treatments ( $t=0.9803$ ,  $df=206$ ,  $p=0.3281$ ). We detected 30 ADRs in 148 patients treated with pirfenidone (4 of which were severe) and 66 in 120 patients treated with nintedanib (1 severe). Nintedanib showed a greater percentage of ADRs at the gastrointestinal level (NV 18%, diarrhoea 42%, WL 23%, nsGID 39%) compared with pirfenidone (NV 17%, diarrhoea 7%, WL 13%, nsGID 20%). Pirfenidone instead showed a greater percentage of rash (43%) compared with nintedanib (8%). The  $\chi^2$  test carried out on type of action taken showed a statistically significant difference in the distribution of patients who suspended or reduced the dosage for the two drugs ( $\chi^2$  (96)=9.329,  $p\leq 0.0023$ ,  $df=1$ ). Nintedanib showed a higher percentage of patients who reduced the dosage (70%) compared with pirfenidone (37%), probably due to the different dosage titrations. The percentage of patients who suspended therapy was higher for pirfenidone (63%) than for nintedanib (30%).

**Conclusion and relevance** Although the tolerability of the drugs was comparable, nintedanib showed a higher incidence of ADRs compared with pirfenidone but with a lower severity.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

#### 5PSQ-101 DRUG-DRUG INTERACTIONS AND POTENTIALLY RELATED ADVERSE CLINICAL EVENTS IN PATIENTS WITH CARDIOVASCULAR DISEASES

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**Background and importance** Several studies have estimated that about 60% of patients present at least one potential drug-drug interaction (DDI) at discharge. Considering that DDIs are predictable, a review of DDIs conducted by pharmacists and physicians would be ideal.

**Aim and objectives** The aim of this analysis was to measure the frequency and nature of DDIs in a cardiovascular unit and investigate whether any adverse events after discharge could be associated with these DDIs.

**Material and methods** This was an observational retrospective study involving patients discharged between December 2016

and December 2017. The discharge medication list within the electronic medical record was used to determine the presence of moderate or severe DDIs at discharge. To check if any adverse events were associated with DDIs, we reviewed the causes of each hospitalisation or access to the emergency department (ED) within 3 months after discharge.

**Results** Among 2715 patients screened, 624 (23%) were exposed to at least one potential DDI. A total of 1108 DDIs were recorded, 834 (75.3%) were classified as moderate and 274 (24.7%) as severe. The median number of DDIs per patient was 1.8 (range 1–11). The most frequent severe interaction was the combination of some selective serotonin reuptake inhibitors and furosemide (38%). Among the most frequent moderate interactions, we registered an association between warfarin and acetylsalicylic acid (10.2%). Of the 624 patients with at least one DDI, follow-up data were available for 593 (95.0%). Among them, 144 (24.3%) had at least one adverse clinical event within 3 months after discharge. A total of 212 events were recorded (hospitalisations=179; ED attendance=33). For approximately 12% of these events, the cause of hospitalisation or ED attendance was potentially associated with a DDI.

**Conclusion and relevance** From this analysis it emerged that a remarkable number of patients had been discharged with at least one DDI and a considerable portion of the included patients might have experienced an adverse event due to these DDIs. The next step will be the involvement of a clinical pharmacist within a multidisciplinary team to highlight to the physician any potential DDIs before discharge and minimise the occurrence of their related risk.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

#### 5PSQ-102 AMBULATORY SUBCUTANEOUS BIOLOGIC THERAPY OPTIMISATION IN RHEUMATOLOGY: IMPLEMENTATION OVER TIME

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**Background and importance** Biologic treatment optimisation (BTO) consists of reducing the dose and/or increasing the interval between doses in patients who have maintained their therapeutic goal for at least 6 months. In 2013, our hospital created a BTO protocol for chronic inflammatory arthropathies, based on the consensus established between the Spanish Rheumatology Society and the Hospital Pharmacy Society.

**Aim and objectives** To analyse the percentage development of BTO for subcutaneous biologic therapy (SBT) in patients with chronic inflammatory arthropathies, and to determine the drugs involved after implementation of the protocol.

**Material and methods** This was an observational retrospective study comparing patients with chronic inflammatory arthropathies being treated with SBT and BTO in 2016 and 2019. Optimisation was defined as any prescription with a lower dose or a longer administration interval than usual. Variables measured were number of patients being treated with SBT, optimisation percentage (patients with optimised prescriptions/patients treated) and optimisation percentage for each drug